

WHAT IS CLAIMED IS:

1 1. A system for receiving electromagnetic and optical signals comprising:
2 a first reflecting device for reflecting the electromagnetic and optical signals;
3 an electromagnetic receiver for receiving the reflected electromagnetic waves,
4 wherein the electromagnetic receiver comprises a second reflecting device for reflecting the
5 optical signals; and
6 an optical receiver for receiving the optical signals reflected from the
7 electromagnetic receiver.

1 2. The system of claim 1, wherein the first reflecting device comprises a
2 parabolic dish.

1 3. The system of claim 1, wherein the first reflecting device comprises a
2 material to reflect the optical signals.

1 4. The system of claim 3, wherein the material comprises a mirror-like
2 material.

1 5. The system of claim 1, wherein the first reflecting device comprises a
2 material to reflect the electromagnetic signals.

1 6. The system of claim 5, wherein the material comprises a metallic
2 material.

1 7. The system of claim 6, wherein the metallic material is polished to
2 reflect optical signals.

1 8. The system of claim 1, wherein the optical signals comprise infrared
2 signals.

1 9. The system of claim 1, wherein the electromagnetic signals comprise
2 radio frequency signals.

1 10. The system of claim 1, wherein the electromagnetic signals comprise
2 microwave signals.

11. The system of claim 1, wherein the second reflecting device comprises a material capable of reflecting optical signals.

12. The system of claim 12, wherein the material comprises a mirror-like substance.

13. The system of claim 1, wherein the first reflecting device reflects the electromagnetic and optical rays to a focus area, wherein the focus area includes the electromagnetic receiver.

14. The system of claim 1, further comprising a transmitting system comprising an optical transmitter.

15. The system of claim 1, wherein the electromagnetic receiver is designed to transmit electromagnetic signals.

16. A system for receiving electromagnetic and optical signals comprising:
a receiver designed to receive the electromagnetic signals, wherein the receiver includes an aperture where the electromagnetic signals are received through;
at least one lens covering at least a portion of the aperture, wherein the lens is designed to bend the optical signals;
at least one optical receiver designed to receive the bent optical signals; and
an electromagnetic receiver designed to receive the electromagnetic signals received by the receiver.

17. The system of claim 16, wherein the receiver comprises a horn.

18. The system of claim 16, wherein the optical signals comprise infrared signals.

19. The system of claim 16, wherein the electromagnetic signals comprise radio frequency signals.

20. The system of claim 16, wherein the electromagnetic signals comprise microwave signals.

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1 21. The system of claim 16, wherein the lens is designed to allow
2 electromagnetic signals to pass through the lens.

1 22. The system of claim 16, further comprising a transmitting system
2 comprising an optical transmitter.

1 23. The system of claim 16, wherein the electromagnetic receiver is
2 designed to transmit electromagnetic signals.

1 24. A broadband communications system for receiving electromagnetic
2 and optical signals comprising:
3 a parabolic dish for reflecting the electromagnetic and optical signals to a
4 focus area, the parabolic dish comprising an aperture;
5 an electromagnetic receiver located in the focus area for receiving the reflected
6 electromagnetic waves, wherein the electromagnetic receiver comprises a reflecting device
7 for reflecting the optical signals through the aperture; and
8 an optical receiver for receiving the optical signals reflected through the
9 aperture from the electromagnetic receiver.

1 25. The system of claim 24, wherein the optical signals comprise infrared
2 signals.

1 26. The system of claim 24, wherein the electromagnetic signals comprise
2 radio frequency signals.

1 27. The system of claim 24, wherein the electromagnetic signals comprise
2 microwave signals.